In the Specification

Page 6, line 18, insert after "between about" --1 kHz and 10 MHz and most preferably between--. A1

Page 8, ~~line~~ 8, at the end, insert -- In one embodiment, the acoustic energy or pressure is measured at one or more frequencies other than the frequency or frequencies at which the acoustic energy is applied. For example, the acoustic energy or pressure is measured at a frequency or frequencies corresponding to integer multiples of one-half or one-fourth of the frequency applied.-- A2

Page 32, line 6, please delete "means" and insert --devices-- ~~in place thereof.~~

In the Claims

1. (Amended) A method for altering permeability, cell viability or structural integrity of biological materials comprising

(a) administering acoustic energy to the biological materials at one or more frequencies;

(b) measuring [the effect of the acoustic energy or] a property of the acoustic energy at the time of or subsequent to the initial application of the acoustic energy; and A3

(c) using the measurement obtained in step (b) to modify continued or subsequent application of acoustic energy to the biological materials.

9. (amended) The method of claim 8 wherein the<u>biological materials are made</u> [increased permeability is] partially or completely [reversible] <u>reversibly permeable</u>. A4

17. (amended) The method of claim 1 wherein the [application of] acoustic energy [causes] <u>is applied under conditions to effect</u> cavitation within or on the surface of the biological materials. A5

19. (Amended) The method of claim 1 wherein the property of the acoustic energy that is measured [acoustic energy or pressure] is measured at one or more frequencies other than the frequency or frequencies at which the acoustic energy is applied.

20. (Amended) The method of claim 1 wherein the property of the acoustic energy that is measured [acoustic energy or pressure] is measured at a frequency or frequencies corresponding to integer multiples of one-half or one-fourth of the frequency applied.

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21. (Amended) The method of claim 1 wherein the acoustic energy is measured at one or more frequencies in the acoustic spectrum which do not correspond to peaks in the acoustic spectrum and are taken from the broadband signal of the acoustic spectrum.

22. (Amended) The method of claim 19 wherein the acoustic energy measurement is analyzed using a mathematical algorithm, [such as] selected from the group consisting of Fourier Transform [or the] and Fast Fourier Transform.

26. (Amended) A device [for use in the method of any of claims 1-25] comprising

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(a) means for administering acoustic energy to biological materials at one or more frequencies;

(b) means for measuring a property of the acoustic energy at the time of or subsequent to the initial application of the acoustic energy; and

(c) means for using the measurement of the property of the acoustic energy to modify continued or subsequent application of acoustic energy to the biological materials.

27. (Amended) A method for altering cell viability or transport of chemical or biological agents into or through [biological materials or cell viability] an internal organ,

internal tissue or vessels in a human or other animal using acoustic energy[, wherein the biological materials or cells are at a site distant from the site of application of the acoustic energy], comprising:

administering acoustic energy at one or more frequencies by applying a transducer to a [first] site on the human or other animal;

wherein the acoustic energy alters transport or cell viability [at a second site in the human or other animal distant from the first site] at an internal organ, tissue or vessel.

28. (Amended) The method of claim 27 wherein the [first site is] acoustic energy is applied to the skin or a mucosal membrane and [the second site is] alters transport or cell viability at an internal organ, tissue or vessel.

29. (Amended) The method of claim 27 wherein the [cells are] acoustic energy alters transport or cell viability of tumor cells.

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30. (Amended) The method of claim 27 wherein the acoustic energy alters transport into or out of the cells of molecules selected from the group consisting of therapeutic, prophylactic and diagnostic agents.

31. (Amended) The method of claim 27 wherein the transducer is directly applied to a tissue [other than the biological materials where transport or cell viability is to be altered] using invasive or minimally invasive means.

Please add the following new claims 32 and 33.

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32. The method of claim 31 wherein the transducer is applied to a blood vessel using a catheter.